REMARKS

Claims 9-24 are currently pending in the present application, none of which has been amended.

Rejection under 35 U.S.C. § 103

Claims 9-12, 14-20 and 22-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Guha* (US 6,539,373) in view of *Irwin* (US 6,052,683). Applicants respectfully traverse such rejection.

Claim 9 (and similarly Claim 17) recites "means for constructing a search key." Specifically, a search key is constructed by "generating a full match search increment comprising the binary representation of a data string element, wherein said data string element includes a plurality of non-delimiters between a pair of delimiters" and by "concatenating a pattern search prefix to said full match search increment to form said search key, wherein said pattern search prefix is a cumulative pattern search result of all previous full match search increments."

On pages 2-3 of the Office Action, the Examiner asserts that the claimed means for constructing a search key is disclosed by *Guha* in col. 8, lines 35-60. In col. 8, lines 35-60, *Guha* mainly discloses a search term 301, a primary hash function 302, a hash key 303 and a secondary hash function 304, but many of the claimed terms are not found in col. 8, lines 35-60 of *Guha*. For example, the claimed terms "non-delimiters" and "delimiters" (or their equivalents) from the step of "generating a full match search increment step includes a data string element having multiple non-delimiters located between a pair of delimiters" are not found in col. 8, lines 35-60 of *Guha*.

Claim 9 also recites "means for returning to said constructing a search key, in response to finding a matching pattern within said lookup table" and "means for utilizing the previous full match search result to process said data string, in response to not finding a matching pattern within said lookup table." Thus, according to the claimed invention, if a matching pattern is found within the lookup table, then a new search key is constructed; but if a matching pattern is

not found within the lookup table, then the previous full match search result is used to process the data string. On page 3 of the Office Action, the Examiner asserts that the claimed means for returning to said constructing a search key is disclosed by *Irwin* in col. 6, lines 52-63, and that the claimed means for utilizing the previous full match search result to process said data string is disclosed by *Irwin* in col. 9, lines 10-32.

In col. 6, lines 52-63, *Irwin* mainly discloses the functions of memory modules 64 and 66. Module 66 is used as a lookup table to provide a 16-bit binary decoding tree, and module 64 is used to provide an associative search of network addresses that are stored in logical bins that have a specific prefix value. Thus, the claimed means for returning to said constructing a search key is not disclosed by *Irwin* in col. 6, lines 52-63.

In col. 9, lines 10-32, *Irwin* discloses that binary search module 62 selected a prefix value from a prefix search list 82, and selected prefix value 84 is used to generate a network address search value 84 from a full destination address 80. The claimed means for returning to said constructing a search key is not disclosed by *Irwin* in col. 6, lines 52-63.

Because the cited references, whether considered separately or in combination, do not teach or suggest all of the features of the claimed invention, the § 103 rejection is believed to be overcome.

CONCLUSION

Claims 9-24 are currently pending in the present application. For the reasons stated above, Applicants believe that independent Claims 9 and 17 along with their respective dependent claims are in condition for allowance. The remaining prior art cited by the Examiner but not relied upon has been reviewed and is not believed to show or suggest the claimed invention.

No fee or extension of time is believed to be necessary; however, in the event that any fee or extension of time is required for the prosecution of this application, please charge it against IBM Corporation Deposit Account No. 50-0563.

Respectfully submitted,

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